<u>The Japanese Campaign in Malaya: December 1941-February 1942</u> <u>A Study in Joint Warfighting</u>

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Introduction

Joint warfighting doctrine has continued to evolve since World War II, and most recently has become an issue of substantial focus and development within the U.S. military. Today it is recognized that the significance of joint warfighting is its potential for overwhelming effect, in today's terms, the means by which the full measure of U.S. military power can be brought to bear effectively in any crisis. In fully understanding the concept of joint warfighting the first question to ask is what makes joint warfighting joint. The formal answer is found in current doctrine that says that joint warfighting exists when it involves forces of two or more Service departments; they are effective when the unique strengths and advantages of their forces are successfully integrated and focused. It works better than a nonjoint approach, which can be proved through historical analysis.

A number of historical examples can illustrate and reinforce the efficacy of joint warfighting. One such example is the Japanese campaign against British Commonwealth forces in
Malaya during World War II. During that campaign the Japanese applied the tenets of joint warfare doctrine in defeating the British.

Analytical Method

In conducting a historical campaign analysis to demonstrate how joint warfighting doctrine was applied, the word "joint" must first be defined in more conceptual, universally applicable terms than in the current Service department-based doctrine. Each of the Service departments can be thought of as a dimensional expert, and the competencies of their respective forces can be considered dimension-based. The dimensions are defined by operating medium: air, land, or sea. Forces designed to operate in a particular dimension inherit the natural strengths and advantages attendant thereto. And so conceptually, joint warfighting is the merging of two

or more dimensional competencies into a harmonious, unified effort. Put another way, it is the application of integrated multidimensional military power. The intended result is synergized force that has overwhelming effect, achieved by an all-aspect capability that allows force application at great depth and provides for the availability of an asymmetric advantage at any point of contention.

Defining joint warfighting as a multidimensional endeavor, the analytical framework, constructed from current joint doctrine, analyzes the Japanese campaign relative to the Fundamental Elements of Operational Art. This approach, like current doctrine, emphasizes the operational-level nature of joint warfighting, granting that effective joint warfighting implicitly demands adherence to these fundamental elements. The Japanese adhered to the fundamental elements, and the collective result was imbedded in the overarching joint warfighting characteristic: applied multidimensional force, a force that was manifested by the effective integration of Japanese air, land, and naval power.

Campaign Background

In December 1941 the Japanese began their war efforts to secure and dominate the entire Far East. It was the first phase of a three-phase strategy ultimately aimed at placing the Japanese in control of the Southern Regions, which included the resource-rich Netherlands East Indies. Their strategy was to simultaneously conduct multiple operations throughout the region in an effort to surprise and confuse the Allies as to their objectives. Once the Japanese objectives had been achieved, they would begin consolidating and strengthening them in an effort to create an impenetrable strategic defense intended to fend off the expected counterattack by Allied forces. The assumption was that the Allies, operating at the end of long supply lines and without any advanced bases, would be unable to sustain an effort against their defense, ultimately relenting to

the Japanese, leaving them hegemony of the Far East under the guise of their "Greater East Asia Co-Prosperity Sphere" [3, p. 88].

The Japanese began with the destruction of the American fleet in Pearl Harbor, for it represented the most serious threat to interdict their operations in the region. At the same time they launched attacks and campaigns throughout the Southern Region, including a two-prong thrust against the Philippines and Malaya. The ultimate goal of the Malaya campaign was the seizure of Singapore, which would ensure unhindered movement of oil from the Netherlands East Indies to Japan, while eliminating what had been to that point the symbol of British power in the Far East.

The campaign lasted over two months, beginning in early December 1941 and ending with the British surrender at Singapore on 15 February 1942. The Japanese achieved their victory despite having to project power from sea to land, and then being on the attack, with an outnumbered ground force, against a defending enemy, over difficult terrain, in a demanding tropical climate. Japanese victory was assured in large measure because they effectively integrated the combined capabilities of their air, land, and naval forces. As military historian John Keegan noted: "The perimeter strategy was rooted deeply in the psyche and history of the Japanese who, as an island people, had long been accustomed to using land and sea forces in concert to preserve the security of the archipelago they inhabit and extend national power into adjoining regions" [7, p. 252].

Fundamental Elements of Operational Art

Arranging Operations

Commanders of joint forces should arrange the elements of the campaign in space and time to exploit an adversary's vulnerabilities while taking advantage of friendly capabilities. This is

commonly accomplished by the use of both sequential and simultaneous actions aimed at achieving campaign objectives rapidly. Campaigns are typically structured in phases [14, p. V-3]. The Japanese had a clearly outlined campaign plan finalized by the end of October 1941, of which the Malayan operation was just one part. Phase 1 would begin with the attack on Pearl Harbor to destroy the U.S. Pacific Fleet, followed almost immediately by landings on the Kra Isthmus in Thailand and in Northern Malaya in preparation for a push south to Singapore. Also in Phase 1 were to be the invasion of Hong Kong; air attacks on Guam, Wake, and Luzon to cut U.S. communications, followed by the invasions of Mindanao and Luzon; and the seizure of Borneo's oilfields. All of this was scheduled for completion by D+50 [9, p. 14].

Phase 2 consisted of the annexation of the Bismarck Archipelago, the capture of the entire Malayan peninsula and the naval base in Singapore, the occupation of the South Burmese airfields, and moves into the Malacca Passage and Straits of Macassar in preparation for an invasion into the Netherlands East Indies. This phase was to be accomplished by D+100 [9, p. 14]. The final portion was Phase 3, which included the capture of Sumatra and Java and the occupation of Burma, scheduled for completion by D+150 [9, p. 15]. The operation in Malaya and Singapore, then, spanned portions of both Phase 1 and Phase 2. As it turned out, the Japanese took only 70 days to capture all the Malayan peninsula and Singapore, a full 30 days ahead of schedule.

Another example of arranging operations was the Japanese decision to press their attack on Singapore rather than just shelling it. They had successfully occupied the entire Malayan peninsula, moving a large distance in constant contact with the enemy in a relatively short period of time, and they could have taken the opportunity to rest their forces and simply shell Singapore into submission. Instead, they decided to directly attack Singapore. The Japanese felt that the

psychological impact of the rapid capitulation of the so-called impregnable fortress of Singapore on both their enemy and their own people would be significant. They also wanted to take possession of the British naval base as soon as possible, and thus ensure safe passage of their ships through the Singapore straits. In addition, the troops involved in the Malaya-Singapore operation were sorely needed for the ongoing campaigns in the Philippines and the Netherlands East Indies [5, p. 44]. The Japanese forces still had momentum, whereas the British and their allies had been in retreat and on the defensive for most of the campaign. Pressing the assault on Singapore thus exploited the Japanese strengths and the weaknesses of their enemies.

Anticipation

The essence of anticipation can be traced back to Sun Tzu: "If you know the enemy and know yourself, you need not fear the results of a hundred battles" [11, p. 8]. Japan's ultimate success in this campaign is directly attributable to its anticipation of the political and military requirements necessary to accomplish its strategic and operational objectives. They were keenly aware of their own strengths and weaknesses, and they worked hard to understand those of the British. Strategically, they realized they could not win a war against a combination of all the major powers that had important interests in the Far East They had to find a way to eliminate the ability of one or more of these powers to join a war against them in the Pacific. They eliminated the Soviet Union from any coalition against them when Japanese Foreign Minister Yosuke Matsuoka negotiated a brilliant neutrality treaty with them in April 1941 [6, p. 154]. That treaty ensured that the Japanese could focus on the Southern Region without worrying about the Soviets opening a second front against them in Manchuria or Korea. They also anticipated that the United States might join a coalition of colonial powers to defeat Japan in the Pacific, therefore

the U.S. naval and naval-based air power in the Pacific were a vital threat to planned Japanese operations; hence the Japanese attack on the American fleet at Pearl Harbor.

At the operational level, joint doctrine addresses the element of anticipation by stating that understanding the types of capabilities and forces available to the opponent helps the joint force commander to focus objectives, phasing, and timing. The joint force commander uses intelligence, surveillance, and reconnaissance assets to form a picture of the enemy. The Japanese did a superb job of collecting information for a year prior to the Malaya Campaign. The Japanese collected information concerning the British forces in Malaya, fortifications on the peninsula and Singapore, and the beachheads and terrain that would be encountered during the invasion. Japanese collection assets included agents operating in Malaya, open source collection, and reconnaissance flights.

To focus intelligence collection in preparation for the Malaya Campaign, the Japanese created the Doro Nawa Unit, known as the "Taiwan Army Research Section." The 30-member team was chartered to collect all conceivable data connected with tropical warfare in the six months before beginning the attack. The area of responsibility was the entire Pacific war region and its budget was 20,000 yen (about 400 \$US) [10, p. 13]. The Doro Nawa received open source information from the Southward Association, who had been collecting information about countries in the tropics to effect better trade. Information was also gained from sea captains, mining companies, banking officials, university professors, and private individuals. Open source collection included a secret chart of Indonesia from a captain of a merchant ship who made many voyages to the South Pacific. In another example, a Japanese resident of Malaya gave Doro Nawa aerial photos of Singapore [10, p. 12].

The Japanese also used a network of operatives. Up to the outbreak of hostilities a significant number of Japanese nationals were permitted free movement in the country in accordance with the British policy of appeasing the Japanese Government. Upon outbreak of hostilities many of them disappeared before they could be interned, eventually returning with the invaders as guides and intelligence agents [15, p. 45]. In another instance two members of Doro Mawa disguised as Thai locals penetrated deep into Malaya and performed reconnaissance on areas of particular interest to the Japanese army. Valuable information was gained on airstrips, landing areas, Thai troops, debarkation points and defenses, and road systems. On another occasion, an officer from the Military Staff Headquarters was entrusted with an official inspection of the southern areas of Malaya. He detailed critical information on Singapore defenses and British Army fighter planes and total troop strength. This first-hand information was essential to the Japanese High Command [10, p. 7].

During the planning phase, with all of this information in hand, the Japanese conducted extensive terrain analysis, made templates of projected enemy force dispositions, and analyzed likely British actions. Much of this analysis was confirmed during secret aerial reconnaissance flights over the Malayan peninsula [10, p. 41]. As a result, the Japanese were able to anticipate and accurately predict the defense of Malaya and Singapore. They were aware of the lack of British aircraft carrier support, and because of this predicted that the British would first secure the northern airfields in Malaya to support land-based aircraft. Therefore, the Japanese made the capture of these airfields their first priority, thereby denying their use to the British, while retaining them for their own use [10, p. 30]. Thanks to their prewar reconnaissance, the Japanese knew that the Malayan terrain and restrictive lines of communication favored the defender. So they developed and employed an innovative form of maneuver using successive amphibious op-

erations, "leap-frogging" forces down the peninsula in a well-orchestrated and integrated naval-ground force effort that allowed them to place forces to the flanks and rear of heavily prepared enemy defenses and major combat forces [4, p. 390]. Finally, the Japanese also correctly anticipated the British main defensive plan of Singapore. This allowed them to successfully deceive the British defenders as to the direction of the Japanese main offensive.

Thus, anticipation, enhanced with the combined effects of applied air, land and naval power, allowed the Japanese to accomplish preliminary actions that set the conditions for success, and then operate well within the British decision cycle, consistently remaining one step ahead.

Centers of Gravity and Decisive Points

Joint doctrine defines the concept of Center of Gravity (COG) as "those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength or will to fight. In theory, destruction or neutralization of (an) adversary's COG is the most direct path to victory" [13, p. III-22]. A decisive point is "a geographic place, specific key event, critical system, or function that allows commanders to gain a marked advantage over an enemy and greatly influence the outcome of an attack" [13, p. GL-8]. By applying leverage at and/or to a decisive point, one's own COG can be protected, and that of an adversary can be attacked. At the operational level of war, the Japanese brilliantly applied leverage and protected their own center of gravity while attacking those of the British.

During the Malaya campaign, the Japanese operational COG was their naval forces.

Since they were conducting operations in a maritime theater, their naval forces were crucial to their ability to project power ashore. Successful action against those forces, either directly or indirectly, would likely have deterred or terminated the Malayan campaign on terms favorable to

the British. The first significant operational decisive point occurred during the deployment of the Japanese naval expeditionary force, embarked on two convoys from Hainan Island to the seaports of Singora and Khota Bharu [15, p. 21]. The decisive point came when the Americans spotted these convoys two days before the Japanese landings, and they were reported by British aerial reconnaissance one day before, but no action was taken to interdict or preempt that embarked force while it was still extremely vulnerable [1, p. 157]. There were several reasons for this, but one of the most crucial had to do with Japanese awareness and concern regarding their COG. To protect the naval convoys, the lines of communication, and the deployment of forces ashore, the Japanese used their air and naval forces to gain air and naval superiority. They attacked the American fleet at Peal Harbor, and later sank the British battle cruiser *Repulse* and the new battleship *Prince of Wales*, and then destroyed most of the British air forces with bombing raids against British airfields in the region.

Another of the Japanese decisive points was the Thai ports of Singora and Patani, for it was through them, and through the use of nearby airfields, that the Japanese would have the means to successfully project their military power ashore, and then support and sustain it in the drive to Singapore. To deal with that contingency, the British had planned a preemptive strike to deny those ports to the Japanese [1, p. 157]. The plan, called Operation Matador, required a minimum of 24 hours' warning of a landing by Japanese forces. But the Japanese employed effective operations security, deceptive routing, and speed to protect the movement and intended destination of their naval convoys. The result was that the Japanese were able to rapidly secure those ports, push their ground forces ashore, and begin their attacks down the Malayan peninsula against the British army before Operation Matador could be ordered into execution.

For the British, the army, a Commonwealth coalition primarily of British, Australian, and Indian units, was their operational-level COG. To deal with that army, the Japanese effectively applied their naval, ground, and air forces in a series of nose-to-nose clashes at key strongpoints that were supported by successful amphibious operations aimed at the flanks and rear of the defending British army as they established sequential strongpoint defenses. This was to lead to an event that became the decisive point relative to the British COG, the Slim River battle. It was there that the terrain gave the British the best advantage in terms of defense. But their defense was breached, and the fate of the British army was sealed. "When the Japanese broke through that position, central Malaya was lost to the British, and its largest city, Kuala Lumpur, was open to the enemy" [1, p. 161]. The British defense of the peninsula rapidly deteriorated after the Slim River battle. They were forced to fall back into the island of Singapore and prepare for their final defense, which ended with their surrender to the Japanese. The Japanese seizure of Singapore and the capture of thousands of prisoners were arguably the final operational decisive point of the campaign.

Synergy and Leverage

Synergy and leverage are the foundation of joint warfare. They give a joint force commander the ability to achieve the greatest effect from all available forces, and integrate and employ force to exploit advantages in combat power across all dimensions. In the Malaya Campaign, the Japanese did a superb job integrating their air, land, and naval forces to overwhelm the British. There was superb cooperation between the land and naval forces and the air arms of both services. Whatever traditional jealousy might have existed between the Japanese army and navy did not extend to the armies and fleets at the front. The teamwork left nothing to be desired. "Joint Task Forces" organized during the summer of 1941 trained and worked together

continuously until the outbreak of hostilities [15, p. 46]. Four years of frequent collaboration against an active enemy on the coasts and rivers of China had given both services much valuable experience, which was put to good use in planning and organizing joint expeditionary forces. Details of command, supply, and other matters were carefully worked out in advance and clearly understood by all concerned. Specific examples of Japanese synergy and leverage during the Malaya Campaign include the landings on Khota Bharu, the attack on Parit Buntar, and the assault down the Malaya peninsula.

During the landings on Khota Bharu all forces were in total cooperation. The initial beach assault began at night, which deprived the Japanese of close air support. At daybreak Japanese aircraft attacked British air bases, conducted close air support of the attack, and established almost uninterrupted air superiority over the operating area. Once air superiority was gained, the Japanese used their reconnaissance planes and dive bombers to strafe British ground troops and supply columns while using their heavy bombers for long-range attacks on bridges and other objectives.

The attack on Parit Buntar and assault down the Malaya Peninsula went just as smoothly. The roads in which the troops marched were low, flat country covered with dense jungle. The density of the jungle was such that it was impossible to move more than a few feet off the road on either side. The fighting was done by small units at the head of the column in spite of the large number of troops available. By the clever use of demolitions, roadblocks, and rear guards armed with motorized antitank guns, the British were able to slow the Japanese advance and inflict heavy losses. But the Japanese soon realized the fighting in this area was similar to the mountain pass fighting encountered by the Germans in Norway and the Balkans. Using German tactics, the Japanese used dive-bombers as a kind of long-range artillery where the terrain made

observation difficult and the emplacement of large numbers of artillery batteries virtually impossible. Roadblocks and centers of resistance were cleared with a few bombs from dive-bombers [15, p. 46]. The Japanese proceeded in this way down the peninsula; a series of direct frontal attacks against each strongpoint in turn, supported by a series of amphibious maneuvers that placed forces to the flanks and rear of these strongpoints. This integrated approach compelled the British defenders to rapidly withdraw and establish defensive lines further and further to the rear, and closer and closer to Singapore. The objective each time was limited to the strongpoint immediately in front, and after its capture fresh combat teams were brought up to defend the area against counterattacks by the British.

Thus, the synergy and leverage of air, land, and sea forces allowed the Japanese to gain, maintain, and exploit the advantage against an enemy defending in a subtropical jungle, within and upon terrain thought by the British to be impassable.

Operational Reach and Approach

Operational reach is the ability to support operations over some distance. By understanding operational reach the joint force commander can establish the operational approach, lines of operations, and sequencing operations for a given campaign.

The Japanese clearly understood the operational reach of their forces. Limited sea-based aircraft and poor road and rail networks in Malaya bounded the areas for invasion and the sequence of operations. The Japanese chose to land invasion forces at Singora and Patani in Malaya, and Kra Isthmus and Khota Bharu in Thailand. These beachheads were chosen because they had suitable terrain for landing forces, sufficient road networks, and local air bases, and were within the range of land-based air cover. Singora and Khota Bharu were also on branch lines of the Singapore-Bangkok railway [5, p. 30].

During the initial stages of the campaign, Japanese aircraft operated from bases in southern Indo-China to provide air cover for the invasion forces. Naval planes provided air cover to the invasion convoys. Success hinged on the early seizure of the local airbases in order to enable land-based airpower to move forward and thus have the reach to cover troop advances. The invasion forces moved west, then south. That movement allowed the primary Japanese ground effort to use existing rail and road networks. The southern advance was thus protected by sea power and air power from airbases seized during the advance. Reinforcements were brought in from Bangkok using the existing Singapore-Bangkok railway. Reinforcements could also be brought in from sea if necessary [5, p. 32]. Land-based airpower moved down the peninsula as airbases were seized, thus maintaining continuous air support. The Japanese also advanced along rail and road networks to allow for easier force replenishment. Had the Japanese not sequenced their attack in that fashion, British forces would have overwhelmed them.

Simultaneity and Depth

Joint force commanders should strive to achieve simultaneity and depth in their application of operational art. The goal is "to bring the appropriate elements of the force to bear simultaneously against the opponent's entire structure to the depth of the theater in order to multiply the combined effects and increase synergy" [14, p. V-1]. The initial Japanese landings in Thailand and Malaya, accompanied by air attacks against British air bases in Malaya, are some of the best examples of the Japanese use of simultaneity and depth in the campaign. The Japanese landed ground forces first at Khota Bharu in Malaya followed quickly by simultaneous landings at Singora and Patani in Thailand, all supported by fighter aircraft. Although they met some resistance at Khota Bharu, the landings at Singora and Patani were virtually unopposed. In conjunction with the landings, a series of air attacks were conducted against British airfields in northern Ma-

laya. These air attacks succeeded in destroying the majority of the British aircraft, and within 24 hours of the beginning of the operation, air superiority had been attained and the RAF in Malaya no longer existed as an effective fighting force [9, p. 24-26]. The very next day, the British ships *Prince of Wales* and *Repulse* were sighted by a Japanese submarine. The ships had no air cover due to the destruction of the RAF, and the Japanese launched an air attack against the ships. While this attack was unsuccessful, another sighting the next day and a determined air attack with a larger force led to the destruction of the two British ships. Within a matter of two days, the Japanese were masters of both air and sea [2, p. 7-8]. The Japanese achieved this feat by their simultaneous use of their air, land, and naval forces throughout the depth of the AOR. The British forces, on the other hand, employed their forces either independently or without effective coordination, and did not achieve simultaneity or depth.

Balance

The principle of balance refers essentially to the state of the joint force's posture, meaning that forces are both committed and held in reserve, are engaged decisively and capable of accepting mission changes, are established in fixed positions and capable of movement and maneuver, etc. The use of balance permits the force to adapt rapidly to changing situations. The commander of a joint force should maintain balance in his own force while seeking to disrupt the enemy's balance, using powerful strikes from unanticipated dimensions or directions [14, p. V-2]. One example of the Japanese use of the principle of balance was the numerous encircling amphibious maneuvers employed during the attack down the Malayan peninsula. That technique of powerful strikes from unexpected directions disrupted the British army's balance, and enabled the Japanese to either decimate the defending forces or force them to retreat further south. The Japanese used that strategy in the Perak River crossing, where they met stiff resistance. The

sudden appearance of a strong Japanese force at the mouth of the Perak River, virtually in the middle of their line, forced a British retreat. In the Battle of Kuala Lumpur, the British repeatedly fought off desperate attacks from the Japanese, only to be forced to abandon their positions time and time again due to the landing of Japanese troops behind their lines [15, p. 31]. In contrast, with the exception of two ambushes set up by the Australian forces, the British army did not put the Japanese off balance during the campaign.

Another example of the Japanese use of balance was their technique of rotating battalions through the fight. Since the terrain would often permit only a single battalion to be in contact with the enemy, the Japanese would continually rotate their battalions, resting the bulk of their forces and keeping fresh troops at the front. That technique was very effective both in the fight for the Larut Hills and in the battle of Kuala Lumpur. In the Larut Hills, the defenders consisted of a single battalion, which quickly tired under the assault of fresh Japanese troops. In Kuala Lumpur, although the British forces had troops in reserve, they were unable to bring them to the front in time [15, pp. 29-32].

Timing and Tempo

Joint force commanders should carry out operations at a time and with a tempo that best inhibits the enemy and exploits friendly capabilities. Proper timing allows the joint force commander to control the action, staying unpredictable to his opponent, and operate more rapidly than the enemy can react [13, p. III-15]. One of the best examples of the use of timing and tempo was the initial Japanese attack on the Malayan peninsula. The attack was so swift and well concealed that the initial landings in Thailand and northern Malaya were conducted before the British had time to give the execute order for Operation Matador. Within a few hours of the start of hostilities, the Japanese had over 26,000 men ashore [2, p. 6].

Another example of the Japanese use of timing and tempo took place during the battle for Kuala Lumpur. The British had realized that the Japanese units landing behind their lines were the most severe threat to their continued defense of the Malaya peninsula, and sent a force to the mouth of the Selangor River to block the most logical landing place for Japanese forces. However, the strength of the Japanese attack on the British front required so many troops in defense that the British were unable to mount an adequate defense at the mouth of the Selangor. The British were able to prevent the Japanese from landing for a time with air attacks from a recently reinforced RAF, but this too was soon squashed, and the Japanese landed at the Selangor [15, p. 33].

Culmination

Culmination is the physical or psychological point at which a military force "no longer has the capability to continue its form of operations, offense or defense" [13, p. GL-8]. It is usually directly attributable to a physical constraint like logistics or adequate available combat forces, but on occasion can be attributed to vital intangible factors such as morale or the will to fight.

In the Malaya campaign, the Japanese expertly applied or exploited nearly all the fundamental elements of operational art. However, with regard to the concept of culmination, they were less artful. In fact, by several accounts, they almost culminated too soon, at a point before the seizure of Singapore, the primary objective of the Malaya campaign. Without Singapore, the campaign would have been a failure. What created the conditions for culmination was having too many irons in the fire.

The Japanese planned to execute five separate, simultaneous major operations, while continuing operations in China, and sustaining the occupation of Manchuria and Korea [7, p.

253]. Rather than adopt a strategy of sequential operations, which would have allowed for the employment of numerically superior forces, they instead conducted simultaneous operations that depended on speed of execution. The Japanese planned quick strikes with the intent that all operations would be successfully concluded before British reinforcements could be deployed. This was crucial because a defeat in any one operation could have caused a cascading problem requiring diversion of forces from one operation to another. Based on the strategy of speed, the Japanese began the Malaya campaign with fewer ground forces than the British.

The campaign ended when Lieutenant General Arthur Percival, the Commanding General of British forces, surrendered "more that 130,000 British, Indian, Australian and local volunteer troops to a Japanese force of half their number" [7, p. 261]. It could be argued that the Japanese were nearing culmination when Percival surrendered. The historian Louis Allen writes that Japanese Lieutenant General Yamahita, commander of the 25th Army, believed "that his own offensive had run out" [1, p. 168] at the time when the British signaled their surrender. Several accounts indicate that the Japanese were running out of ammunition, the men were physically exhausted, and they had no more reserves to commit to the offensive. General Wavell, the commander of the American-British-Dutch-Australian Command (ABDACOM), which had assumed command of the theater, believed "the Japanese could be fought to a standstill, held, and then driven back" [1, p. 168]. Important questions remain unanswered concerning either side's ability to continue the campaign at the point of surrender. Had the Japanese offensive culminated or was it nearing culmination? Could the sizeable surviving British and indigenous forces have mounted a defense of the city of Singapore that might have either brought the Japanese offensive to an operational culmination or delayed a British defeat until follow-on forces could arrive or a diplomatic solution be found? It can never be known for certain, but some believe there

was a real possibility the British could have mounted a successful defense of city of Singapore, brought the Japanese offensive to a culmination, ejected the Japanese from the island, and prevented the capture of Singapore. Nevertheless, with their surrender, it is clear that culmination, at least in terms of the will to fight, occurred with the British first. And with the Japanese, having demonstrated their ability to bring all of their forces to bear—air, land and naval—may well have presented the British, who were contending the battle with ground forces only, with a situation that appeared hopeless.

Additional Factors: Morale

While the Japanese clearly used the principles of joint warfare more skillfully than their adversaries, there were additional factors that contributed to the success of the operation. One of those factors was the morale of the Japanese troops. There is no questioning the extreme nationalistic fervor and high motivation of the Japanese soldiers, sailors, and airmen. That exceptional "offensive spirit" was recognized both by the Japanese and by their enemies [15, p. 46]. In addition, following the economic and oil embargo imposed by the Allies, the Japanese were convinced they were fighting for the survival of their nation [2, p. 5].

That fact, coupled with their culture, at the heart of which was the Emperor, gave the Japanese people a powerful national will to fight. Consider that the Japanese homeland endured intense attacks, including atomic bombings that killed tens of thousands, for over three years, yet the nation's will to fight was never broken. Despite the fact that the Japanese were being slowly ground down and driven back toward Japan, the Allies were still likely facing a fierce defense of the Japanese homeland. The defeat of Japan did not come until Emperor Hirohito publicly announced "his government had decided to treat with the enemy . . . (then) seventy million subjects relapsed instantly into the posture of defeat" [7, p. 584].

Additional Factors: Training

Another major factor in the success of the Japanese campaign was training, specifically that which was oriented toward joint operations. This manifested itself in a number of different areas. One of these was the way the Japanese air cadets were trained. An air cadet course was established at the Japanese Military Academy in 1926, and while air cadets received additional instruction related to their specialty, they lived among the ground cadets and received the same education. When the Military Air Academy was established in 1937, air cadets were chosen from junior cadets who already had two years of training at the Military Academy, so air officers had a fairly good knowledge of army tactics. To further strengthen ties between the two services, artillery and infantry officers were selected each year for liaison duty with the air force, and they received reconnaissance training [12, p. 1].

The Japanese also established Air-Ground Communication Squads in each headquarters, usually led by signal officers who had received training in air-ground communications. When an air-ground action was planned, various tactical details were worked out, including procedures for air-ground communications, ensuring that the two forces were closely coordinated [12, p. 3].

Yet another example of the joint training was the use of two full-scale joint rehearsals. The first of those took place in March of 1941, and involved large-scale navy and army maneuvers. Simulating an attack on Singapore following an amphibious landing in Malaya, the 5th Division (Army), escorted by Combined Fleet elements and with cover from army air units, crossed the East China Sea while under simulated attack from air and naval units, made a landing on Kyushu, and simulated the capture of coastal defenses. That very successful exercise focused on development of antisubmarine and antiaircraft defense of convoys, the tactical challenges of am-

phibious landings, and rapid construction of airstrips in newly occupied areas. The commander of the exercise later became Yamashita's chief of staff in Malaya [5, p. 25].

The second exercise took place in southern China in June 1941. Officers and men sweated under the hot sun for ten days while testing tactical and logistical advances from the Army Research Section. The exercise culminated in the amphibious landing of a reinforced infantry battalion on Hainan Island in China. The island's circumference (over 600 miles) roughly approximated the distance from the planned landing sites in Thailand to Singapore, and the assault force made its way around the island to simulate an attack on the British base at Singapore. The troops made training attacks, practiced destroying and repairing bridges, and exercised other useful skills. Because of that, the Japanese learned a great deal about equipment, tactics, and organization for warfare in the tropics [5, pp. 25-26].

Conclusion

The Japanese success during the Malaya campaign, like any success, can be attributed to a number of factors. It could be argued that political decisions on the part of the British with respect to theater priorities and force allocations prevented the British in Malaya from being better supported by their air and naval forces. It could be argued that there were issues of leadership and unity of command, issues of training and morale, and that elements of luck played a part. Certainly these were all factors, as no doubt were others. But it doesn't change the fact that the Japanese conducted a joint warfighting campaign as it would be defined in today's terms, and it was that aspect of their operations that was crucial to their success in Malaya, irrespective of other factors.

The Japanese demonstrated that operational art is just that—art. After all, they obviously did not know that they were adhering to the tenets of current joint doctrine, that they were ap-

plying the fundamental elements of operational art as they are formalized today. Yet, apply them they did. They managed to bring those fundamentals together into the framework of a campaign in which they merged the unique capabilities offered by their air, land, and naval forces. Their approach was multidimensional, an approach that they had trained for, and then executed with great effect. Their success was in unified action. They supported ground and naval operations with integrated deep and close air support. They integrated naval and air power into the projection of ground forces ashore, and the maneuver of those forces down the peninsula. The result was the achievement of a level of synergy that allowed an outnumbered attacking force to defeat a much larger defending force, defending on ground of its choosing.

The multidimensional aspect of their campaign gave the Japanese the means to attack in depth across the theater, eliminating British air and naval threats, achieving theater-wide air and naval superiority, and projecting ground power ashore. Through that attack-in-depth, the Japanese created a set of conditions in which actions had the effect of simultaneity, an effect that was manifested by the fact that British naval and air support was of no relevance at the time when it would have been needed most: during the Japanese entry onto, and their drive down, the Malaya peninsula.

Simultaneity and actions in depth, achieved by the synergy of multidimensional attack, ultimately denied the British the capability of challenging the Japanese in more than one dimension. That allowed the Japanese to reach their ultimate objective, Singapore, indirectly, attacking down a peninsula against an enemy compelled to defend it with ground forces alone. One historian expressed the situation this way: "Apart from the Japanese preponderance in aircraft carriers, the Allied fleets and the Japanese fleet had been roughly equally matched when hostilities

began. By the afternoon of 10 December 1941, the Japanese fleet was the mistress of the seas from Hawaii to Ceylon. The (British) army in Malaya was on its own" (1, p. 158).

And so, in the final analysis, the Japanese managed to create for themselves an operational-level asymmetric advantage: they shaped the British into a one-dimensional adversary, forced to defend a peninsula against a multidimensional onslaught. Thus, the Japanese succeeded in Malaya because they applied the tenets of joint warfighting doctrine; they were able to conduct an effective multidimensional joint warfighting campaign against a one-dimensional enemy who was not.

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